FIRM VALUE DETERMINANTS WITH DIVIDEND POLICY AS A MODERATOR IN INDONESIA'S COAL MINING INDUSTRY

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Abstrak

This study aims to examine the determinants of firm value with dividend policy as a moderating variable in coal mining companies listed on the Indonesia Stock Exchange during the 2019–2023 period. Specifically, the study analyzes the effects of environmental performance, capital structure, financial performance, and enterprise risk management on firm value, with dividend policy acting as a moderating variable. A quantitative approach was employed using panel data regression, processed through EViews 12 software. The research population consists of 23 coal mining companies, with 10 companies selected as samples based on specific criteria. The results show that environmental performance (KL), financial performance (ROA), and enterprise risk management (ERM) have a significant positive effect on firm value, while capital structure (DER) does not show a significant effect. Meanwhile, dividend policy significantly moderates the relationship between environmental performance and firm value, as well as the relationship between financial performance and firm value. Dividend policy also moderates the relationship between capital structure and firm value, but does not significantly moderate the relationship between enterprise risk management and firm value. This study is expected to contribute theoretically to the development of financial management literature and practically as a strategic reference for management in coal mining companies to enhance firm value sustainably.

Keywords: firm value, dividend policy, environmental performance, financial performance, enterprise risk management

INTRODUCTION

The coal mining sector has long been a pillar of Indonesia's economy, contributing significantly to both domestic energy supply and foreign exchange through exports. Despite global pressure for transition to cleaner energy, coal remains a major energy source globally, accounting for over 38% of global electricity generation in 2022. In Indonesia, the sector contributed approximately IDR 2,198 trillion or 10.5% to national GDP in 2023. However, fluctuations in Price-to-Book Value (PBV) despite increasing production raise concerns about other underlying drivers of firm value.

This study investigates the determinants of firm value, focusing on environmental performance, capital structure, financial performance, and enterprise risk management (ERM), with dividend policy as a moderating variable. While previous research has examined these variables independently, this study integrates them into a single model to provide a comprehensive view, especially in the high-risk and capital-intensive coal sector.

The study makes theoretical contributions by refining the application of stakeholder theory, signaling theory, and the Bird in the Hand theory in the context of coal mining companies. Practically, it provides insights for managers in aligning financial decisions with stakeholder expectations and for investors in evaluating firms beyond surface-level profitability metrics. The novelty of this research lies in examining dividend policy as a moderating factor in the relationship between firm performance variables and firm value in a volatile industry.

The results show that environmental performance, financial performance, and ERM have significant positive effects on firm value. Dividend policy strengthens the relationships between environmental performance, capital structure, and financial performance with firm value but has no significant moderating effect on ERM. These findings suggest that sustainability and risk governance must be supported by financial signaling mechanisms to enhance firm valuation.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

This section discusses the theoretical foundations, previous empirical studies, and the formulation of hypotheses related to the relationship between environmental performance, capital structure, financial performance, enterprise risk management (ERM), and firm value, with dividend policy as a moderating variable.

Stakeholder Theory emphasizes the firm’s responsibility not only to shareholders but also to a broader range of stakeholders including the environment, regulators, and society. Companies with strong environmental performance often gain favorable perceptions from stakeholders, enhancing long-term firm value. Signaling Theory suggests that financial information and policies like dividend distribution serve as positive signals to investors, reducing information asymmetry. Bird in the Hand Theory postulates that investors prefer dividends over uncertain future capital gains, thus making dividend policy an effective signal of financial health.

Numerous empirical studies show varied results. Fauzi (2022) and Darmayoga et al. (2020) found that environmental performance positively influences firm value. However, other studies noted inconsistencies, potentially due to industry-specific factors. Regarding capital structure, findings are mixed. While Rasyid et al. (2022) support a positive influence, others like Aprelia and Pernamasari (2024) suggest a non-significant relationship. Financial performance, particularly measured through ROA, is consistently associated with higher firm value (Rutin et al., 2019; Al-Omari et al., 2024). ERM’s role is more nuanced, with some studies highlighting its significance (Phan et al., 2020), while others show neutral or context-specific outcomes (Saputra et al., 2023).

Siswanti et al. (2024) also explored the intersection of sustainability practices and financial performance, underscoring the importance of integrating environmental factors into the broader financial strategy of firms. Their findings indicate that sustainability efforts such as green banking and digital transformation significantly influence financial outcomes, aligning with the framework proposed in this study.

Based on these theoretical and empirical considerations, the following hypotheses are proposed:
H1: Environmental performance has a positive effect on firm value.
H2: Capital structure has a positive effect on firm value.
H3: Financial performance has a positive effect on firm value.
H4: Enterprise Risk Management has a positive effect on firm value.
H5: Dividend policy moderates the effect of environmental performance on firm value.

H6: Dividend policy moderates the effect of capital structure on firm value.
H7: Dividend policy moderates the effect of financial performance on firm value.
H8: Dividend policy moderates the effect of Enterprise Risk Management on firm value.

RESEARCH METHOD

This study employed a quantitative approach using panel data regression to analyze the relationship between environmental performance, capital structure, financial performance, enterprise risk management (ERM), and firm value, with dividend policy as a moderating variable. The population consists of 23 coal mining companies listed on the Indonesia Stock Exchange (IDX) during the 2019–2023 period. Using purposive sampling, 10 companies were selected as the research sample based on availability of PROPER environmental ratings, financial data, and consistent reporting.

Firm value was measured using the Price to Book Value (PBV) ratio. Environmental performance was proxied by PROPER ratings issued by the Indonesian Ministry of Environment. Capital structure was measured by the Debt to Equity Ratio (DER), financial performance by Return on Assets (ROA), ERM by COSO-based disclosure index, and dividend policy by Dividend Payout Ratio (DPR).

Data were collected from annual and sustainability reports published on the companies' official websites and the Indonesia Stock Exchange portal. The analysis was conducted using EViews 12. Panel data regression models were tested using the Chow Test, Hausman Test, and Lagrange Multiplier Test to determine the best model. Fixed Effect Model was selected based on test results. Hypothesis testing used t-statistics with a 5% significance level, while R-squared and F-statistics evaluated the model's explanatory power.

RESULTS AND DISCUSSION

The regression analysis used the Fixed Effect Model as determined by Chow and Hausman tests. The adjusted R-squared value was 0.566, indicating that 56.6% of the variation in firm value is explained by the independent and moderating variables. The F-statistic showed that the model is jointly significant.

Environmental performance has a significant positive effect on firm value ($p < 0.05$). This suggests that coal companies that demonstrate strong environmental responsibility are perceived positively by investors, improving firm valuation. The result supports stakeholder theory, highlighting the strategic importance of sustainable practices in capital-intensive industries.

Capital structure has no significant effect on firm value ($p > 0.05$), indicating that debt-equity levels alone do not influence investor perceptions in this sector. This may reflect that other metrics such as cash flow and earnings potential carry more weight than leverage ratios.

Financial performance, measured by ROA, positively and significantly affects firm value. Companies that efficiently use their assets to generate profits attract stronger investor confidence. This finding aligns with signaling theory, where profitability signals operational success.

ERM also has a significant positive effect on firm value. Effective risk management reassures stakeholders and enhances resilience, thereby supporting enterprise value especially in volatile sectors like coal mining.

Dividend policy significantly moderates the relationships between environmental performance, capital structure, and financial performance with firm value. Dividend payout strengthens the signaling function, indicating financial health and enhancing investor trust. This confirms Bird in the Hand Theory.

However, dividend policy does not significantly moderate the effect of ERM on firm value. It suggests that the market evaluates risk management quality independently of dividend policy, emphasizing the unique importance of ERM disclosures and execution. Overall, these findings highlight that sustainability practices, profitability, and risk governance are core to value creation in coal mining, while dividend policy enhances these relationships through investor signaling except in the case of ERM, where its strategic function stands alone.

CONCLUSION

This study investigated the determinants of firm value in coal mining companies in Indonesia, focusing on environmental performance, capital structure, financial performance, and enterprise risk management, with dividend policy as a moderating variable. The findings confirm that environmental performance, financial performance, and ERM significantly influence firm value. Capital structure, however, was not found to be a significant determinant.

Dividend policy significantly moderated the relationships of environmental performance, capital structure, and financial performance with firm value, supporting theories of signaling and investor preferences. Interestingly, dividend policy did not moderate the relationship between ERM and firm value, indicating that risk governance operates independently in investor evaluations.

Theoretical implications highlight the integration of signaling, stakeholder, and Bird in the Hand theories in understanding firm value. Practically, companies should focus on sustainability, profit efficiency, and ERM systems while maintaining a reliable dividend strategy to enhance investor perception and firm valuation.

Limitations include the sectoral focus on coal mining and reliance on secondary data. Future research can extend to other energy sectors and incorporate additional variables such as corporate governance or global commodity prices using mixed methods to capture broader dynamics.

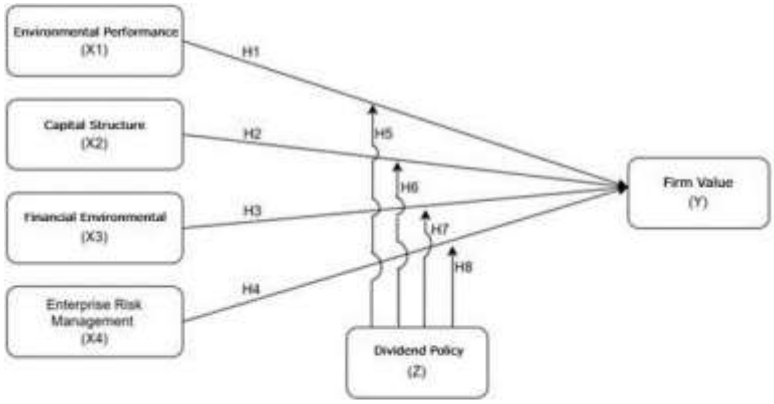

Figure 1 Framework of Thought

Table 1 Panel Data Regression Results of Fixed Effects Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.644144	1.653220	4.623790	0.0000
KL	0.399890	0.145335	2.751496	0.0092
DER	-0.000458	0.004958	0.092343	0.9269
ROA	0.011565	0.009891	1.169215	0.0250
ERM	8.833318	1.969115	4.485934	0.0001
DPR	0.016873	0.016790	1.004971	0.3216
KL_DPR	0.003816	0.001478	2.581591	0.0141
DER_DPR	7.14E-05	6.12E-05	1.166876	0.0259
ROA_DPR	0.000405	0.000101	3.994123	0.0003
ERM_DPR	0.010054	0.021229	-0.473603	0.6386
Effects Specification				
Period fixed (dummy variables)				
Weighted Statistics				
Root MSE	0.863826	R-squared		0.731271
Mean dependent var	1.884920	Adjusted R-squared		0.634230
S.D. dependent var	1.761038	S.E. of regression		1.018029
Sum squared resid	37.30975	F-statistic		7.535698
Durbin-Watson stat	1.858965	Prob(F-statistic)		0.000001
Unweighted Statistics				
R-squared	0.538010	Mean dependent var		1.770600
Sum squared resid	60.04545	Durbin-Watson stat		1.475148

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